



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,829	02/18/2004	Mark J. Mayer	134726 135824 GLOZ 2	3764
7590	10/05/2004		0016	
Scott A. McCollister, Esq. Fay, Sharpe, Fagan, Minnich & McKee, LLP Seventh Floor 1100 Superior Avenue Cleveland, OH 44114-2518			EXAMINER	
			LEE, Y MY QUACH	
			ART UNIT	PAPER NUMBER
			2875	
DATE MAILED: 10/05/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/780,829

Applicant(s)

MAYER ET AL.

Examiner

Y Quach Lee

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15 and 17-24 is/are rejected.
- 7) ☒ Claim(s) 13 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/18/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2875

DETAILED ACTION
Information Disclosure Statement

1. The reference “US 20020021115” cited in the information disclosure statement filed April 17, 2003 has not been considered because the reference does not have a publication date of 1/30/2003 and the inventors are not Sloan et al. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

Specification

2. The disclosure is objected to because of the following informalities: Page 2, the reference numeral “22” is used for two separate elements, “a transparent portion” on line 33 and “a translucent portion” on line 34. Note that the reference numeral “22” as recited on the remaining pages is referring to “a translucent portion”. The reference numeral “44” is used for two separate elements, “an interconnecting leg” on line 13 of page 3 and “the interconnecting wall” on line 29 of page 3. It would appear that the description of “the LED faces **perpendicular** to the translucent portion 22” as recited on line 32 of page 4 does not correspond to what is shown in drawing figures 1 and 2. Drawing figures 1 and 2 show that the LED faces the reflector. Appropriate correction is required.

Claim Objections

3. Claim 9 is objected to because of the following informalities: In claim 9, there are no clear antecedent basis for “the length”, “the second axis” and “the width”. Also, the terms “the length” and “the width” without an element are not proper. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 3 to 5, 7, 8, 15, 16 and 18 to 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3, 5, 7, 15, 16 and 18, the orientation of the first axis and the second axis has not been defined. Which way is considered to be the first axis and which way is considered to be

Art Unit: 2875

the second axis? Claims 4, 8, 19 and 20 depend on rejected claims 3, 7 and 18, respectively, and as such are also rejected.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 7 to 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada (prior art cited by applicant).

Shimada shows a lighting apparatus comprising an elongated extrusion (18) readable as an elongated envelope since it provides a cover or enclosure for a light emitting diode (28a) mounted inside the envelope, the envelope including a translucent portion (18a), a reflector (30) positioned in relation to the light emitting diode such that light emitted from the light emitting diode is directed from the reflector toward the translucent portion with the reflector substantially planar (figure 2) in a cross section taken along a first axis aligned along the length of the apparatus and arcuate in a cross section taken along a second axis aligned with the width of the apparatus and substantially perpendicular to the first axis (figure 2), and the light emitting diode attached to a flexible power cord (column 3, lines 48 to 49).

7. Claims 1, 2, 3, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Mohacsi et al.

Mohacsi et al. show a lighting apparatus comprising an elongated envelope (74) including a translucent portion (paragraph 0029, lines 7 to 8), a light emitting diode (30) mounted in the envelope, a reflector (54) positioned in relation to the light emitting diode such that the light emitted from the light emitting diode is directed from the reflector toward the translucent portion, a channel support (14) attached to the envelope opposite the translucent portion, the light emitting diode mounted to the channel support including engagement members

Art Unit: 2875

(118, 122, 126) adapted to receive associated connecting members (102, 106) with the reflector diffusing (paragraph 0028, line 15) light emitted from the light emitting diode along a first axis of the apparatus, and the light emitting diode facing in a direction substantially perpendicular (figure 1a) to the translucent portion with the light emitting diode positioned greater than 0.5 (figure 2a) inches away from another adjacent light emitting diode.

8. Claims 14, 15, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ueda et al.

Ueda et al. show a light emitting diode (17), an elongated lens cover (19) for the light emitting diode, a reflector (16) positioned adjacent the light emitting diode and shaped such that it focuses light along a first axis of the lens cover and diffuses the light along a second axis (the length) of the lens cover, the reflector including a portion (lower portion, figures 11 to 12) that is situated at a non-perpendicular angle to the direction in which the light emitting diode faces, and the reflector curved in a cross section that is taken substantially perpendicular to the second axis.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mohacsi et al.

Mohacsi et al. disclose the invention substantially as claimed with the exception of having the reflector comprised of a material having greater light diffusing properties along a first axis than a second axis.

To have the reflector comprised of a material having greater light diffusing properties along a first axis than along a second axis would have been an obvious matter of design choice which provides no unusual, unobvious, and/or unexpected result and is therefore deemed to fall within the purview of an ordinary engineering design technique to arrange and orient the diffusing properties of the reflector to properly control the light intensity and directivity.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mohacsi et al. in view of Duggal et al.

Art Unit: 2875

Mohacsi et al. disclose the invention substantially as claimed with the exception of having the reflector comprised of a phosphor material.

Duggal et al. teach a reflector comprised of a phosphor material (94) such that light emitted from the light emitting diode reflects off the phosphor material.

It would have been obvious to one skilled in the art to provide the reflector of Mohacsi et al. with a phosphor material, as shown by Duggal et al., so that light emitted from the light emitting diode reflects off the phosphor material to control the light intensity.

12. Claims 21 to 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mohacsi et al. in view of Duggal et al.

Mohacsi et al. disclose an elongated envelope (74) including a translucent portion (paragraph 0029, lines 7 to 8), a light emitting diode (30) mounted in the envelope, and a reflector (54) adapted to direct light toward the translucent portion. However, Mohacsi does not disclose a phosphor portion affixed to the translucent portion, the phosphor portion affixed to the reflector, the phosphor portion comprising a phosphor insert interposed between the reflector and the translucent portion.

Duggal et al. teach that it is known in the art to affix a phosphor portion (24) to the light transmissive portion to interpose between the reflector and the light transmissive portion, and a phosphor portion (94) affixed to the reflector such that light emitted from the light emitting diode either reflecting off and/or passing through the phosphor portion.

It would have been obvious to one skilled in the art to provide the translucent portion of Mohacsi et al. with a phosphor portion in such a position that the phosphor portion interposed between the reflector and the translucent portion and/or to provide the reflector of Mohacsi et al. with a phosphor portion, as shown by Duggal et al., so that light emitted from the light emitting diode either reflects off and/or passes through the phosphor portion to control the light intensity.

13. Claims 4, 19 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2875

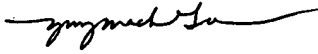
14. Claims 13 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y Quach Lee whose telephone number is 571-272-2373. The examiner can normally be reached on Tuesday and Thursday from 8:30 am to 4:30 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service 571-272-2815

Y. Q.
September 30, 2004


Y Quach Lee
Patent Examiner
Art Unit 2875